

Mondrian® Fire Rated EI30

Product Data Sheet



Mondrian Fire Rated Doors are designed for robust fire protection with sophisticated, Art Deco inspired steel frames. The FR EI30 offers 60 minutes integrity and 30 minutes insulation.

Frame

Ultra slim thermally broken metal frames with elegant industrial design.

- Frame Material
Mild Steel or Stainless Steel
- Frame Depth 60mm—70mm
- Vent + Frame Sightline from 132.5mm
- Meeting Stile Sightline from 155mm
- Base Frame from 122.5mm
- Head Frame 132.5mm

Frame Finishes

Raw Steel, Galvanized Steel and PPC in a choice of RAL colours

Glass

Single glazed as standard with the option of double glazing.

Glass thickness typically from 15-37mm

Sizes

See page 2

Opening Configurations

Doors available in fixed and opening configurations. Also available in shaped or arched openings.

Single casement doors, double casement doors (French Doors), doors with side/over lights, fixed glazing

Performance

Thermal Performance from 1.5 W/m²K
Security Testing up to RC3
Resistance to Wind Load Class 4 (1600 Pa)
Burglar Resistance Class 3
Self-closing Class C
Impact Resistance Class 1

See full performance ratings on page 3

Mondrian® Fire Rated EI30 Product Data Sheet

Maximum sizes EI30 (30 minutes Integrity/ 30 minutes Insulation)

| Opening Configuration | Steel | Stainless Steel | Galvanised Steel |
|---------------------------|----------------------|----------------------|---------------------|
| Fixed Screens | Unlimited w x 4000 h | Unlimited w x 4000 h | - |
| Single Doorsets | 1370 w x 3000 h * | 1300 w x 2500 h | 1400 w x 2500 h *** |
| Single Doorsets | 1370 w x 2500 h ** | - | - |
| Double Doorsets | 2640 w x 3000 h * | 2600 w x 2500 h | 2600 w x 2500 h |
| Double Doorsets | 2640 w x 2500 h ** | - | - |
| Single Unlatched Doorsets | 1200 w x 2483 h | - | - |
| Double Unlatched Doorsets | 2400 w x 2483 h**** | - | - |

* with single mortise lock and top shoot bolt

** without top sheet bolt

*** with full metal sheet cladding

**** Where unlatched double doorsets are fitted with a Besam PowerSwing-2 SAS-F door operator in conjunction with a Jansen bi-metallic latch the maximum clear opening height and width are limited to 2514mm and 2450mm respectively

Maximum sizes EI30 (30 minutes Integrity/ 60 minutes Insulation)

| Opening Configuration | Steel | Stainless Steel | Galvanised Sheet Steel |
|-----------------------|--|----------------------|------------------------|
| Fixed Screens | Unlimited w x 4000 h | Unlimited w x 4000 h | - |
| Single Doorsets | 1010 w x 2415 h * (max area 2.22m ²) | - | - |
| Double Doorsets | 2045 w x 2415 h ** (max area 4.49m ²) | - | - |

* with single mortise lock and top shoot bolt

** without top sheet bolt

Mondrian® Fire Rated EI30

Product Data Sheet

Performance

| Performance | Rating |
|---|--|
| Fire Rating | 60 minutes Integrity and 30 minutes Insulation in accordance with BS 476: Part 22: 1987 Stainless Steel Doors 30/30 EI30 in accordance with EN 1634-1 and EN 13501-2 |
| Thermal Performance | From 1.5 W/m ² K in accordance with EN ISO 10077-2 |
| Air Permeability | Class 4 (600 Pa) in accordance with EN 12207 |
| Water Resistance | Class 4A (150 Pa) in accordance with EN 12208 |
| Resistance to Wind Load | Class 4 (1600 Pa) in accordance with EN 12210 |
| Security Testing | RC3 according to EN 1627 |
| Burglar Resistance | Class 3 in accordance with EN 1627 |
| Acoustic Testing | Up to Rw 43 dB (-2;-5) in accordance with EN ISO 410-3 and ISO/DIS 717-1, EN ISO 10140 and DIN 52210 |
| Smoke Doors | In accordance with DIN 18095 and EN 1634-3 S _a /S ₂₀₀ in accordance with EN 13501-2 |
| Classification of Strength Requirements | Class 4 EN 1192 |
| Resistance to Change in Temperature | Class 2(x)C in accordance with EN 12219 |
| Bullet Proofing | FB6 in accordance with EN 1522 |
| Mechanical Durability | Class 8 (1,000,000) in accordance with EN 1191 and EN 1603 |
| Operating Forces | Class 2 in accordance with EN 12217 |
| Ability to Release (emergency exit doors) | EN 179 and EN 1125 (depending on requirements and ironmongery used) |
| Anti-finger Trap | In accordance with EN 16005 |
| Barrier Free | Without threshold in accordance with DIN 18040 |
| Self - closing | Class C in accordance with EN 16034 / EN 13501-2 |
| Impact Resistance | Class 1 in accordance with EN 13049 |

Mondrian® Fire Rated EI30

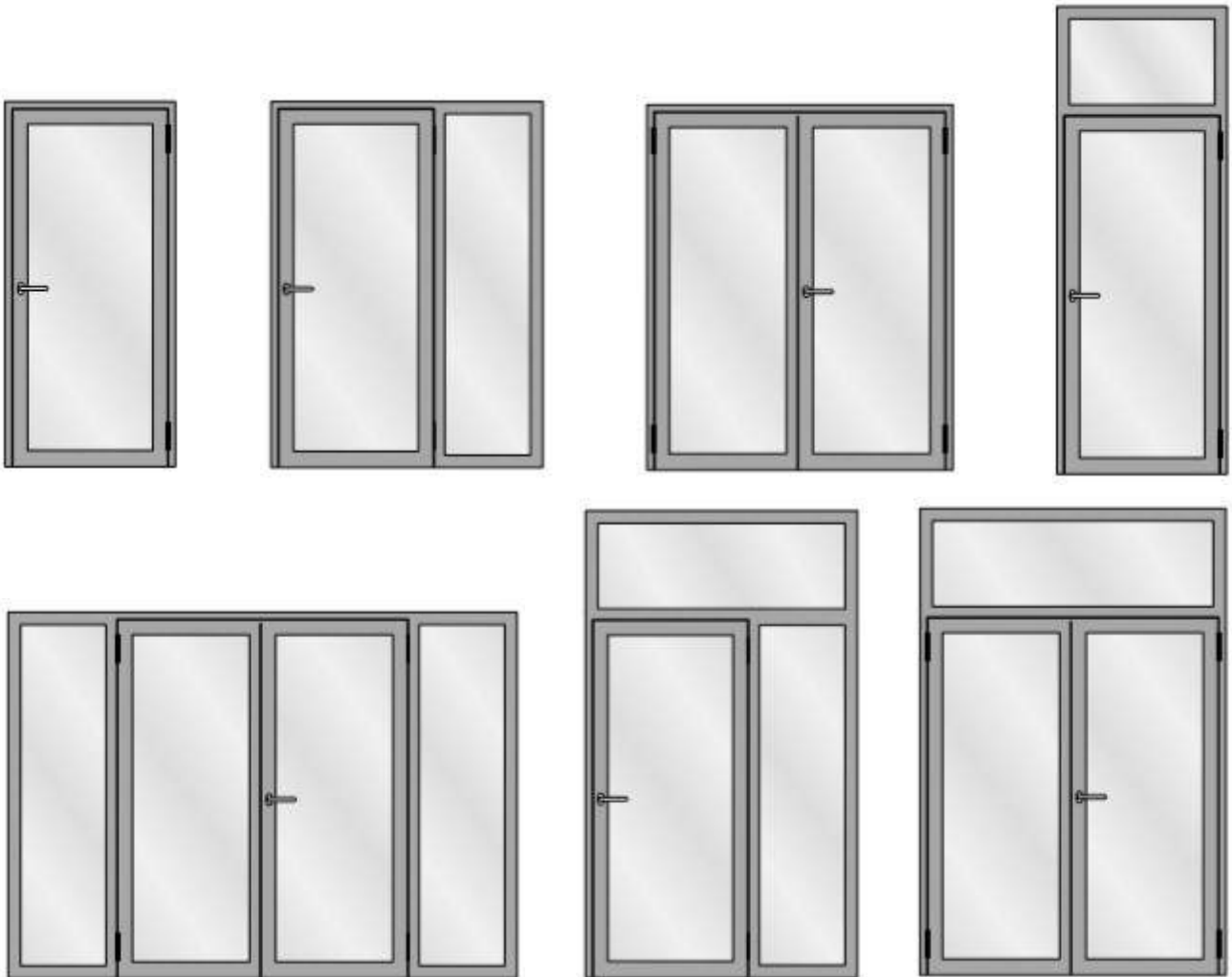
Product Data Sheet

Configurations

Available as both inward and outward opening:

Fixed screens, fixed structural glazing, single hinged, double hinged, opening doors within fixed glazing

Fixed Structural glazing: Individual glass panes 3.5m tall x 1.5m wide with flush vertical silicone joins



Glazing Bars

Adhered glazing bars and true glazing bars are possible to create a traditional steel look.

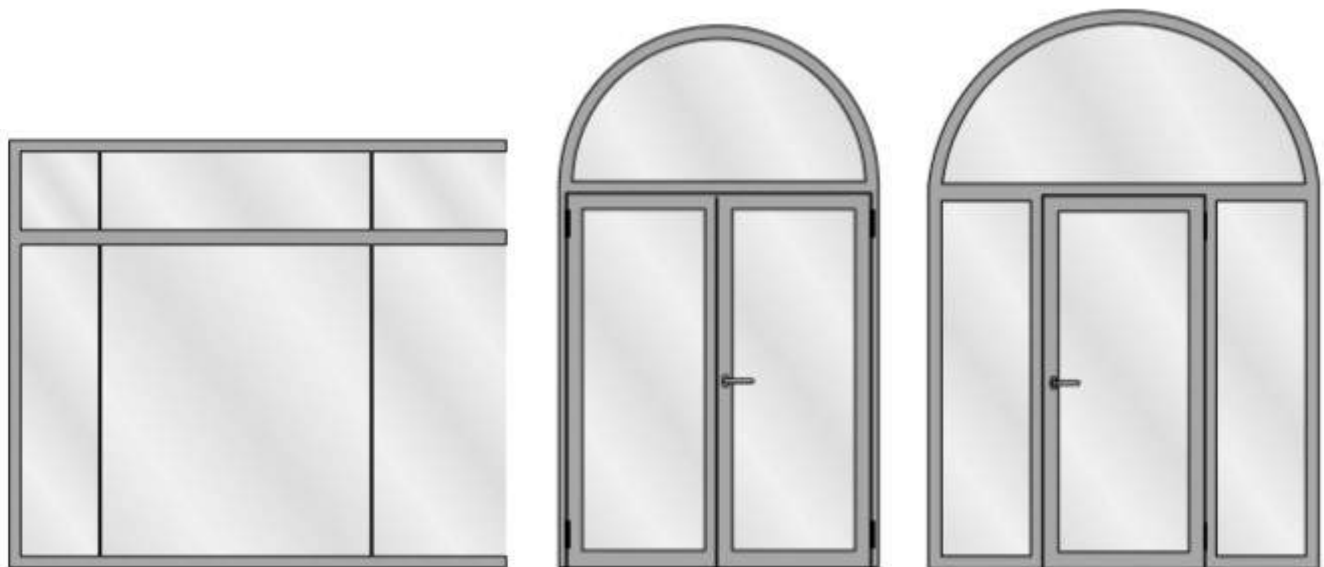
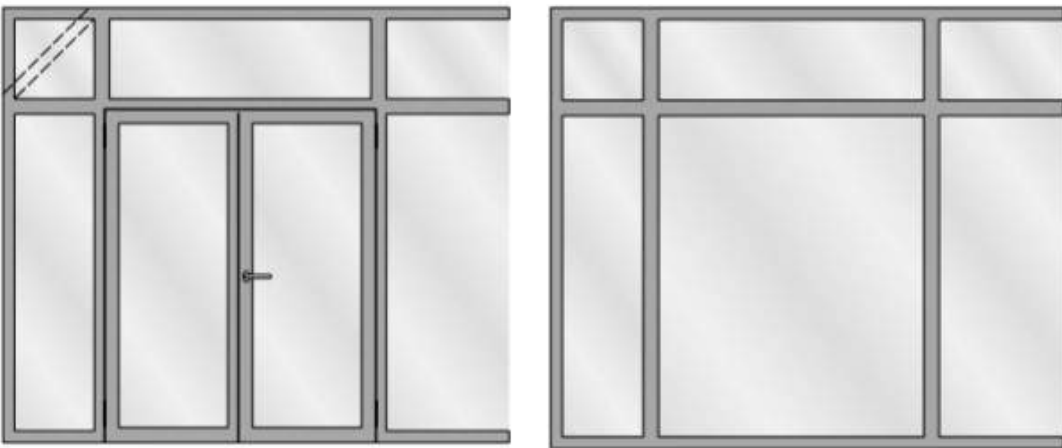
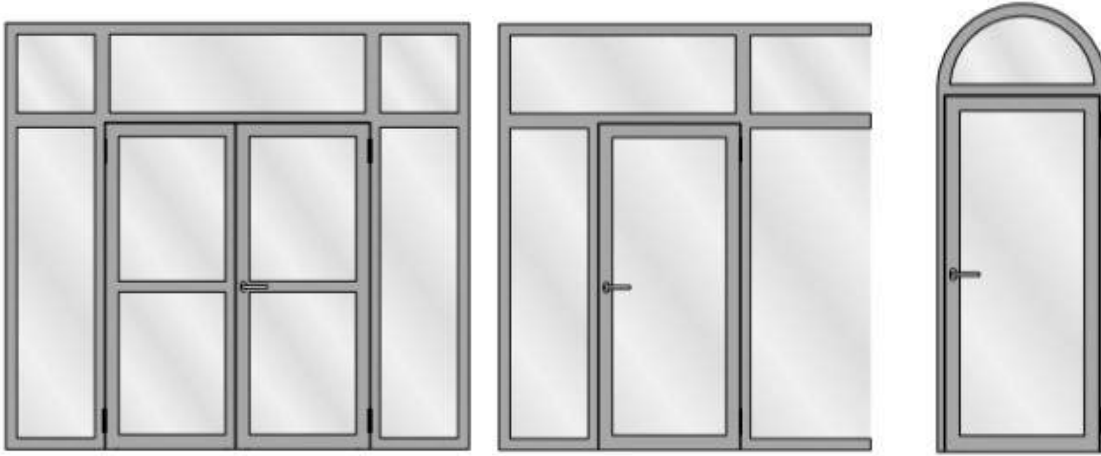
Adhered glazing bar size: 19mm or 25mm

True glazing bar size: 70mm

PPC: same colour as the frame

Mondrian® Fire Rated EI30
Product Data Sheet

Configurations



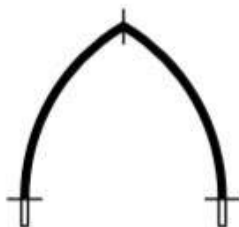
Mondrian® Fire Rated EI30

Product Data Sheet

Configurations - Arched Doors



Semi-circular Arch



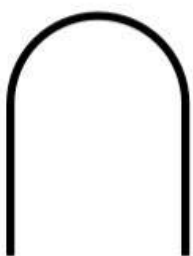
Gothic Arch



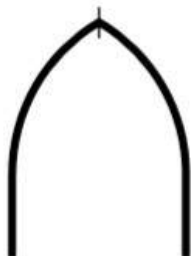
Segmented Arch



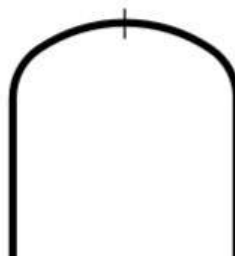
Oval Arch



Semi-circular arch
with side extension



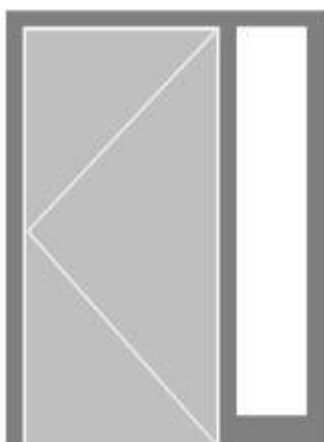
Gothic arch with
side extension



Oval arch with
side extension

Doorsets with metal sheet cladding

The door leaf and outer frame profiles are flush fitted. Sheet metal can be bonded to the outer frame for a solid door



Example Configuration

Single Doorsets

2 x 2.5mm galvanized steel sheet, mineral wool 100kg/m³.

Multi-point lock, 3 latches

2500mm x 1400mm

Double Doorset

2 x 2.5mm galvanized steel sheet, mineral wool 100kg/m³.

Multi-point lock, 3 latches

2500mm x 2600mm

Mondrian® Fire Rated EI30

Product Data Sheet

Locking

Latched Single Leaf Doorsets

Up to 2500mm tall a minimum of ;

A two point latch or single point latch and intumescent strip applied to the top of the door and from the top of the door leaf to the latch

* Taller than 2500mm a minimum of two-point latch must be used

Latched Double Leaf Doorsets

Up to 2500mm tall a minimum of ;

A single point latch to the active leaf with a spring loaded shoot bolt to passive leaf plus intumescent strip applied to the top of the door and from the top of the door leaf to the latch

OR

A minimum of a two point latch to active leaf—in which case a shoot bolt to the passive leaf may be omitted.

* taller than 2500mm a minimum of two-point latch must be used. You can also use a spring loaded shoot bolt on passive leaf if you want

Unlatched Doorsets

Where heavy duty use is the norm but locking not required. Special components need to be used that will activate in the event of a fire so that the door remains closed and is a barrier to heat and fire.

Unlatched doorsets are only suitable for application where a FR of 30 mins is required

No conventional locks/latches are required but active leaf must be fitted with Jansen bi-metallic latch and head and conventional handle height

Mondrian® Fire Rated EI30

Product Data Sheet

Hinges and door closers



All doorsets must be fitted with fire rated surface mounted door closers or concealed closer and in the base of double leaf doorsets a selector mechanism.

The steel frame of the glazed screens is fastened to the surrounding masonry or concrete structure with minimum M8 expanding steel anchors whether through the frame or via steel brackets at 800mm maximum centres.

At the head of each screen a thermal expansion allowance of nominally 20mm is provided by fitting stone mineral wool (60kg/m³ nominal density) tightly in the expansion gap.

For installation into drywall partition systems a similar method is used expect that the M8 expanding anchors are replaced by M8 self drilling self tapping screws.

Mondrian® Fire Rated EI30 Product Data Sheet

Handle Options



Lever Handle

Available with Standard function,
Emergency function B and Emergency
function E

Standard function

- fitting hinge side / side
opposite hinge
- with lock 555.800 ϕ 22 /
555.801 ϕ 17

Emergency function B

- fitting hinge side / side
opposite hinge
- with lock 555.802 ϕ 22 EN 179
- with lock 555.802 ϕ 22 EN
1125* / 555.804 ϕ 17 EN1125*

Emergency function E

- fitting side opposite hinge
- with lock 555.806 ϕ 22 EN
179 / 555.807 ϕ 17 EN 179

Push Bar / Touch Bar

Available with Emergency function B
and Emergency function E

Emergency function B

- fitting side opposite hinge
- with lock 555.802 ϕ 22 EN
1125 / 555.804 ϕ 17 EN1125

Emergency function E

- fitting side opposite hinge
- with lock 555.806 ϕ 22 EN
1125 / 555.807 ϕ 17 EN 1125

Pull Handle

Available with Standard function and
Emergency function E

Standard function

- fitting hinge side / side
opposite hinge
- with lock 555.800 ϕ 22 /
555.801 ϕ 17

Emergency function E

- fitting hinge side
- with lock 555.806 ϕ 22 EN
179 / 555.807 ϕ 17 EN 179 /
with lock 555.806 ϕ 22 EN
1125 / 555.807 ϕ 17 EN 1125

* fitting hinge side **ONLY**

Mondrian® Fire Rated EI30

Product Data Sheet

How to Specify a Mondrian Glazing System

Mondrian Windows and Doors are the first choice for architects and designers all over the UK looking for a high end steel solution for their design. If you would like to specify a Mondrian product for your project just speak to the team at IQ who would be happy to assist.

Speak to the team at IQ

The team at IQ are the experts in our Mondrian product range. If you are considering using a Mondrian product on your project speak to the team at IQ who will be able to advise you on the best solution for your intended design, ensure that all specification criteria are met and advise you on any feasibility areas of the installation you may not have considered.

Get a Quotation

We advise our clients to get a quotation for intended Mondrian installations from IQ. This allows us all to ensure that the preferred product and design is within budget. If it is not we can help you adjust the specification to reach all performance, design and budgetary requirements.

Add us to your NBS Specification

To assist you in specification we have created individual NBS Specification sheets for each Mondrian product. These easy to navigate documents contain all the vital information needed for specification. They are available for you to complete on your own, alternatively ask your sales representative at IQ to complete this on your behalf.

Place the Order

When ready you (or your client or the builder) can then place the order for your Mondrian Door or Window with us. A full in house handover will take place and your project will be passed to the contracts and design team. Once your project deposit is placed we will then undertake full design drawings for the Mondrian installation.

Please allow at least 20 working days for the design process. The project will be appointed a dedicated contracts manager who will oversee the installation process.

Any Questions? Would you like a showroom visit?

Contact the team at IQ who will be happy to help.

hello@iqglassuk.com

01494 722 880

Sky House, Raans Road, Amersham,
Buckinghamshire, HP6 6FT

Mondrian® Fire Rated EI30

Product Data Sheet

Finishes + Material Specification

One of the architectural advantages of the Mondrian Range is the selection of materials and finishes it is available in. When choosing the material and finish for your Mondrian installation it is important to keep in mind the maintenance, usage and location of the glazing to ensure you select one most suited to your environment.

Galvanised Steel

The act of galvanising steel is designed to create a protective zinc layer to the external face of the steel material. This protective layer then protects the internal steel structure from rust or corrosion. The galvanisation process is applied to the entire steel section/sheet which is then cut down to order.

When galvanised steel is cut, welded and cleaned this protective zinc layer on the outside of the steel is slightly compromised at those areas.

Although powder coating gives an element of protection to these joints and edges there is a small chance that oxidisation could occur on the corner joints or cut edges of a galvanised steel profile.

Powder Coated Finishes for Steel

Galvanised, Mild and Stainless Steel can all be powder coated to finish the metal in the RAL colour of your choice.

Dry Powder Coating is the most common method. This involves the even application of charged polyester particles to the frame which are then baked to create a coloured seal to the metal frame. Dry Powder Coating may not be suitable for architectural metal works with intricate detailing as the polyester particles will slightly fill in any delicate notches, lines or detailing.

For these more decorative elements of metalwork Wet Powder Coating is better suited. This coloured finish is applied by hand using a wet spray. The process of hand applying the spray may result in slightly different colour thicknesses across the surface of the metal.

Care of Powder Coated Surfaces

If you chip or scratch a powder coated surface you will expose the base material of the metal and create a weak spot in the metal's defences against corrosion. This point is then an area where moisture can penetrate the metal substrate and cause corrosion or oxidisation.

Care must be taken in the handling of metal elements to ensure that no damage is inflicted to the powder coated surface. This applies to the installation process, post installation construction (where other works will be carried out on site) and once the project is completed.

Information regarding the protection and handling of metal profiles and products should be shared with all that may have interaction with the specialist architectural metal installation. This includes other trades, contractors, cleaners and the end user.

Cleaning of Architectural Metal

Architectural metals are artisan building materials and careful consideration and attention should be taken for their aftercare.

Do not use harsh abrasives or chemicals

Do not use scrubbing brushes or sponges with bristles or rough surfaces

Do not use acidic cleaning products

Clear water with a neutral pH is recommended

Soft wiping with a non-abrasive cloth is recommended

Frames and glass must be fully dried after cleaning

When the glass is cleaned it is important to ensure that all water is dried from the glass surface, in particular in any crevices or corners of the glass where it meets the frame. If this is not done the water may cause corrosion to the profiles.

All parties involved with the maintenance and cleaning of the installations must be given a copy of the O+M manual to ensure proper handling. This includes all external cleaning services, property maintenance and building users.